

CLAIMS

1. A trocar actuator mechanism comprising:
 - a mounting for a trocar spike;
 - an axial shaft having a proximal end, a distal end and a bush at the distal end;
 - the shaft being disposed within a housing and adapted to move relative to the housing between a distal position wherein the trocar spike is protected in use and a proximal position wherein the trocar spike is exposed;
 - releasable locking means being adapted to lock the shaft when the shaft is moved into the distal position;
 - an actuator moveable from an armed position wherein the shaft may move within a housing to a disarmed position wherein the shaft is prevented from movement;
 - wherein the locking means comprises:
 - an axially movable portion on the proximal end of the shaft:
 - an actuator extending through a slot in said portion;
 - wherein the actuator engages proximal and distal ends of the slot to limit movement of the shaft;
 - the actuator being transversely movable between first and second positions, wherein in the first position the actuator engages the shaft to lock and arm the trocar and wherein manual actuation of the actuator causes the actuator to move to the second position wherein the trocar is disarmed.
2. A trocar actuator mechanism comprising:
 - a mounting for a trocar spike;
 - an axial shaft having a proximal end, a distal end and a bush at the distal end;
 - the shaft being disposed within a housing and adapted to move relative to the housing between a distal position wherein the trocar spike is protected in use and a proximal position wherein the trocar spike is exposed;
 - releasable locking means being adapted to lock the shaft when the shaft is moved into the distal position;
 - an actuator moveable from an armed position wherein the shaft may move within a housing to a disarmed position wherein the shaft is prevented from movement;
 - wherein the locking means comprises:

an axially movable barrel engaging a proximal end of the shaft and urged distally by a main spring,

the barrel having a transverse aperture and further including a socket adjacent a proximal end of the aperture,

an actuator having an axis and being mounted in the housing and extending transversely through the aperture, the actuator being movable axially between first and second positions,

the actuator having a shaft and a manual actuator at one end thereof, the actuator further including an abutment facing towards the manual actuator,

a locking plate axially movable relative to the barrel, the locking plate including a latch portion adapted to engage the actuation rod preventing movement of the actuator from the second to the first position;

wherein in the first position of the actuator, the actuator engages the socket to lock and arm the shaft, and

wherein actuation of the manual actuator causes the actuator to move to the second disarmed position.

3. A mechanism as claimed in claim 2, wherein the spring or biasing means urges the actuation rod towards the first position wherein the actuator button is caused to extend from the housing.

4. A mechanism as claimed in claims 2 or 3 wherein latch biasing means is adapted to urge the latch into engagement with the actuator.

5. A mechanism as claimed in claim 4, wherein the latch includes longitudinally extending aperture.

6. A mechanism as claimed in claim 5, wherein the transverse aperture comprises a longitudinally extending slot, extending between transverse faces of the barrel.

7. A mechanism as claimed in any of claims 2 to 6 wherein the latch comprises a plate or other slidable member.

8. A mechanism as claimed in claim 7, wherein the latch is located between proximal and distal portions of the barrel.

9. A mechanism as claimed in claim 8, wherein the latch is located between proximal and distal end pieces of the barrel.

10. A mechanism as claimed in claim 8 or 9, wherein the latch is permitted to move axially being urged in the distal direction by a spring or other resilient means to cause the plate to engage or be urged towards the actuator.